ABSTRACT

A fuel reforming apparatus is provided such that an assembled unit of a reformer 1 with its associated instruments (a water vaporizer 2, primary fuel gasifier 3, desulfurizer 4, low-temperature shift converter 5 and selective oxidation CO remover 6) is covered with and enclosed by a vacuum heat insulating vessel 15 with inner and outer cylinders 15a and 15b and a vacuum heat insulating layer 15c between them. No heat insulating material such as ceramic fiber is required to be charged between the instruments and thus the heat insulating layer may be reduced in volume.